

## Notes on birds from the Upper Noa Dihing, Arunachal Pradesh, Northeastern India

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Between the years 1979 and 1988, under the sponsorship of the Zoological Survey of India (ZSI), Bombay Natural History Society (BNHS), and Smithsonian Institution (USNM), the authors conducted eight ornithological field trips to the valley of the Noa Dihing River, in the Changlang District (formerly eastern Tirap Dist.) of Arunachal Pradesh, northeastern India (Fig. 1a,b). The main purpose of the research was to document the area's unsurveyed forest avifauna (Ghosh 1987). Initial biological interest in this isolated watershed resulted from the proposal to establish the 2000 km<sup>2</sup> Namdapha National Park in the middle and upper segments of the valley. This tract received formal park status in 1983.

Our survey studies were conducted at localities in and outside the park boundaries. These indicate that there has been significant degradation of the forests and forest faunas in the unprotected areas. It is thus necessary to make every effort to ensure that the Namdapha National Park receives adequate protection from poaching and illegal extraction of forest products of all kinds.

Here we present the highlights of our ornithological observations. A complete account of the expeditions and their findings will appear subsequently (Ripley *et al.*, MS). In the following pages we treat 22 species that are of taxonomic and distributional interest. In our accounts, we follow the sequence and nomenclature of Ripley (1982). Specimens treated to the subspecific level were identified by comparison with material in the collections of the U.S. National Museum of Natural History (Washington, D.C.), the American Museum of Natural History (New York), the Zoological Survey of India (Calcutta), the Bombay Natural History Society (Bombay), and the British Museum (Natural History) (Tring). Our specimens have been deposited in the collections of the USNM, ZSI, and BNHS. All length measurements are in millimetres, all weights in grammes.

Altitudes of the six field camps mentioned in the text and featured in Figure 1b are as follows: 40-mile Camp 800 m, 77-mile Camp 1000 m, Gandhigram Camp 1050 m, Ramnagar Camp 1150 m, Vijaynagar Station 1250 m, Lone Camp 1350 m, Upper (or First Upper) Camp 1500 m, Ridgetop (Second Upper) Camp 2500 m.

### WHITE-WINGED WOOD DUCK *Cairina scutulata*

On 8 March 1988, SSS observed a flock of more than 200 in inundated paddy fields near Gandhigram. On 13 March 1988, the research team observed a single individual flying over Vijaynagar station. Birds captured near Miao have been caged for captive breeding under a program directed by the Arunachal Pradesh Department of Forests.

**PEREGRINE FALCON** *Falco peregrinus*

A single, freshly plumaged adult, perched on a dead limb beside the river at Ramnagar, was observed by BB on 9 February 1988. By plumage the bird was identifiable as the race *japonensis*.

**BAMBOO PARTRIDGE** *Bambusicola fytchii*

This was the common galliform of the riverine scrub at the Ramnagar Camp in February 1988 and in cut-over scrub around Gandhigram in March 1988. It travelled in small parties, and flushed easily. We heard the species give a complex, strident but musical vocalization, given by several birds at once. It was most commonly heard in the early morning. The birds consumed rice grains left in the fields adjacent to the river.

**INDIAN JUNGLE NIGHTJAR** *Caprimulgus indicus jotaka*

Our single specimen, a female (ova small), mist-netted in a stand of wild banana at Ramnagar on the night of 16 February 1988, represents the third record of this race in the Indian region (Abdulali & Hussain 1971), and the first from northeastern India. The two other records are from western Bhutan and from a boat at sea, 60 miles northeast of Port Blair, Andaman Islands. We presume that our bird is a wintering migrant from China (Cheng 1987). Weight: 77.

**ORANGE-BILLED JUNGLE MYNA** *Acridotheres javanicus*

On 8 March 1988, at Gandhigram, BB observed a pair foraging in the company of Common Mynas *A. tristis*. The pair of *javanicus* was considerably more wary than the individuals of *tristis*. SSS reports that the species is common in the lower Noa Dihing. These represent the first records of this species for Arunachal Pradesh.

**CORAL-BILLED SCIMITAR BABBLER** *Pomatorhinus ferruginosus namdapha*

Specimens collected by BB and SSS in 1988 from the upper Noa Dihing (Lone Camp) agree perfectly with the description of the race *namdapha*, based on specimens obtained at 40-mile Camp in 1979 (Ripley 1980), and support the validity of this new subspecies, still known only from this watershed.

**SLENDER-BILLED SCIMITAR BABBLER** *Xiphirhynchus superciliaris intextus*

Three specimens from the upper Noa Dihing, collected in 1988, are indistinguishable from the unique type of *intextus* (Ripley 1948), collected at Dreyi, Mishmi Hills, 50 miles to the northwest. Our new specimens also closely approximate a single specimen from northwestern Yunnan (topotypical *forresti*). Further comparison of relevant material from northern Burma and Yunnan may show *intextus* to be synonymous with that subspecies.

Most notable about this species, aside from its remarkably decurved bill, is the variability of the iris colouration. We have records of the following iris colours: red, brown, dark brown, rose, tan, pale grey, and stone yellow. We speculate that the variability in iris colour may relate in some way to sex- and age-related social signalling among members of the small flocks (family groups?) of this species that travel through the thick undergrowth.

**LONG-BILLED WREN-BABBLER** *Rimator m. malacoptilus*

Our two specimens, mist-netted in forest undergrowth, are indistinguishable from material from Sikkim. This elusive species has been encountered only a handful of times in the last fifty years (Koelz 1954, Smythies 1986, Ali & Ripley 1987, van Marle & Voous 1988).

**STREAKED LONG-TAILED WREN-BABBLER** *Spelaornis c. chokolatinus*

We collected two specimens in the upper Noa Dihing (Lone Camp) in 1988. This is the first record of this species from Arunachal Pradesh. In plumage these agree with the nominate race. They are distinct from topotypical *reptatus* from northern Burma, but a single female from northwestern Yunnan is virtually indistinguishable from our birds.

**LONG-TAILED SPOTTED WREN-BABBLER** *Spelaornis troglodytoides*

Our two specimens, taken at the Ridgetop Camp in March 1988, are the first for Arunachal Pradesh. The only other specimens from the Indian region were taken in Bhutan by F. Ludlow and B. Biswas. Our material is distinct from the Bhutanese population (*sherriffi*; Kinnear 1934) and from the other closest forms (*souliei* and *rocki*; Riley 1929) that occur in the mountains to the northeast. We thus propose to name the newly-discovered population from the upper Noa Dihing River:

***Spelaornis troglodytoides indiraji* subsp. nov.**

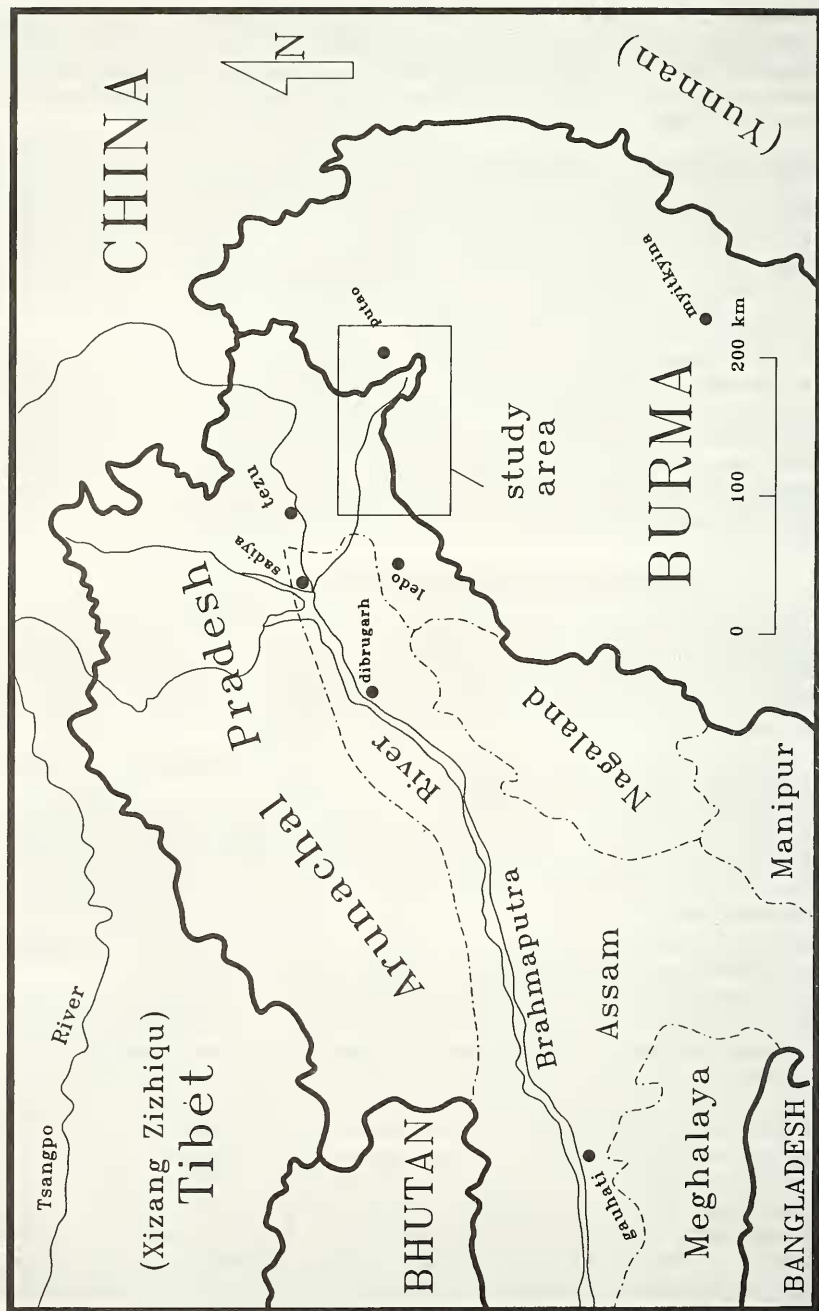
*Holotype*. U.S. National Museum No. 585852, adult male (testes small), collected at the Ridgetop (= Second Upper) Camp, 4 March 1988, 2500 m altitude, Noa Dihing River, Changlang District, Arunachal Pradesh, India (27°15'N, 96°52'E), by S. S. Saha, and prepared by Bruce M. Beehler and C. K. Misra; field number SDR 590.

*Paratype*. Z.S.I. field no. B7; adult male (testes small). Date and location of collection as for holotype.

*Diagnosis*. Differs from all other races of *S. troglodytoides* by the blackish crown and nape marked with a mixture of pale spotting and fine barring of grey-brown, forming a distinct cap that contrasts with the brown of the upper back. Unlike all other races, most nape feathers are distinctly barred with three or more dark bands. Finally, the upper surface of tail and exposed edges of secondaries and primaries are washed with dull brownish-grey rather than brown or rich brown.

*S. t. sherriffi*, of Bhutan, is most similar to this new population. *Indiraji* differs by the following additional characters: (1) pale spotting on crown and nape reduced; and (2) reduced pale spotting on mantle and back.

From *S. t. souliei*, of northeastern Burma, southeastern Tibet, and northwestern Yunnan, *indiraji* differs in: (1) the deep russet (not buff-tan) flanks; (2) grey-and-black (not buff-and-black) barred tail; (3) the distinct break between the blackish nape and the chestnut back; and (4) the darker, richer colours of the dorsal plumage. The race *rocki*, from Yunnan east of *souliei*, is even paler than *souliei* and quite distinct from the Noa Dihing birds. The nominate race, from Sichuan, lacks any of the chestnut colouration in the plumage, and also differs in that the crown, nape, and back are concolorous. In measurements our birds are not separable from any of the other races.



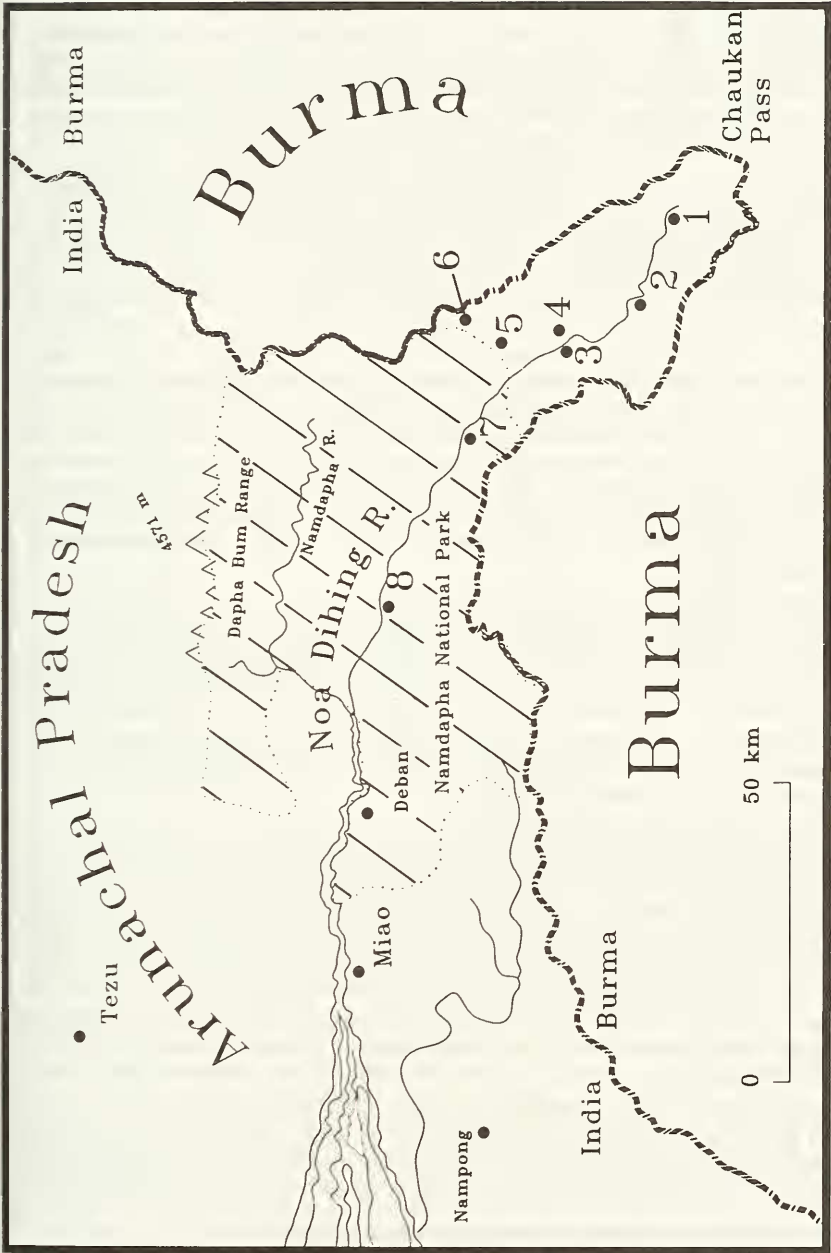


Figure 1. a (left). Map of northeastern India with study area in box. b (right). Map of upper Noa Dihing area, with numbered sites of study camps. 1, Vijaynagar; 2, Ramnagar; 3, Gandhigram; 4, Lone Camp; 5, Upper Camp; 6, Ridgetop Camp; 7, 77-mile Camp; 8, 40-mile Camp.



*Measurements of the holotype.* wing arc 51; wing chord 48.5; bill from skull 13.5; exposed culmen 9; tail 54; tarsus 21. Iris brown.

*Distribution.* Collected during the non-breeding season in the mountains on the northern side of the Noa Dihing River (locality 6 in Fig. 1b). It is known only from the type locality, but we presume it ranges through the mountains, above 2500 m, throughout the India/Burma border ranges from Nagaland to northernmost Arunachal Pradesh.

*Specimens examined.* (*souliei*): Yunnan, AMNH 573697, 573698; N. Burma, 307118, 307119, 307120; (*rocki*): Yunnan, USNM, 296784, 312284; (*indiraji*): Arunachal Pradesh, USNM 585852, ZSI field no. B7; (*trogodytoides*): Sichuan, USNM 321880, 33300; (*sherriffi*): eastern Bhutan, BMNH 11.16.34 (holotype), ZSI 38520.

*Etymology.* *Indiraji* is dedicated to the memory of our beloved friend and foremost member of the Delhi Birdwatching Society, the late Prime Minister of India, Smt. Indira Gandhi.

*Remarks.* Given the presence of *sherriffi* to the west, and *souliei* and *rocki* to the northeast, it is not surprising that a population of this species occurs in the border ranges. Furthermore, we would expect future researchers to find the bird in the easternmost Himalayas of western, central, and north-western Arunachal Pradesh. As our birds were collected in a habitat that received significant snowfall in March, we suspect that the population is a high altitude breeder. It presumably inhabits only ranges that exceed 3000 m altitude.

#### WEDGE-BILLED WREN *Sphenocichla humei roberti*

This species, one of India's little-known birds, was last collected in 1905 (Stevens 1914). We collected a series of birds, which agree well with the race *roberti*. We netted 4 at the Upper Camp on 28 February 1988, and an additional 2 at Lone Camp on 6 March 1988. All were taken in thick undergrowth of regenerating forest. Efforts to find and observe free-ranging birds in the forest failed. Weights were as follows: male 37.2; female 31, 31.2; unsexed 29.2, 41, 43.

#### AUSTEN'S SPOTTED BABBLER *Stachyris oglei*

To our knowledge, this species has been collected only twice before our encounters: first in the Mishmi Hills above Sadiya by Godwin-Austen (Ali & Ripley 1987) and subsequently in the Patkai Range by Baker and Coltart (who received specimens from Naga tribal collectors; see Baker 1922). We mist-netted 7 specimens in the middle Noa Dihing (40-mile Camp, 12–24 March 1979). Although Coltart stated that the iris colour is crimson (see Ali & Ripley 1987), our birds had the following iris colours: brown, dull brownish red, and reddish brown. Iris colour was not readily correlated with age or sex. Weights: male 31, 32, 34, 36; female 28, 30, 31.

#### GREY-SIDED LAUGHING THRUSH *Garrulax caerulatus livingstoni*

Our specimens, taken at the Lone Camp on 27 and 28 February 1988, agree with the race *livingstoni* (Ripley 1952) collected in the Naga Hills, Cachar, and Manipur. This is a first record for Arunachal Pradesh.

#### BLUE-WINGED LAUGHING THRUSH *Garrulax squamatus*

Our series of six exhibits the plumage dimorphism mentioned by Baker (1922: 175). Examination of material at the American Museum confirms

the general impression that the black-throated, black-tailed birds are usually males, and that the rufous-throated, brown-tailed individuals are nearly invariably females. Birds with intermediate plumage occur and can be of either sex. We have a single black-throated specimen that is labelled as female. There is some possibility that this is a product of mis-labelling, as three individuals of this species were collected and prepared together. It thus appears that the dimorphism is sex-related.

#### **FIRE-TAILED MYZORNIS** *Myzornis pyrrhoura*

We collected six at the Second Upper Camp, on 5 March 1988. These are the first records of the species south of the Brahmaputra River. The nearest Indian records are from Pachakshiri, more than 350 km to the northwest. The species has also been taken in western Yunnan (Cheng 1987).

#### **THE *Alcippe vinipectus* GROUP**

At least twenty distinct populations of small tit-babblers are subsumed in the *Alcippe vinipectus* group, traditionally broken into four species: *vinipectus*, *striaticollis*, *cinereiceps*, and *ruficapilla*. Based on new material collected in the Noa Dihing, we suggest a fifth species-level taxon (*ludlowi*), and note that the group exemplifies an explosive radiation of morphologically similar forms that would merit additional study. The species taxa can be readily distinguished as follows: (1) dark facial mask present = *vinipectus*; (2) no distinct markings on face or head = *ludlowi*; (3) mask absent, dark supercilium laterally enclosing reddish-brown crown distinct from colour of mantle and back = *ruficapilla*; (4) mask absent, dark supercilium of variable distinctness, crown much like mantle = *cinereiceps*; and (5) dark streaking on both crown and throat = *striaticollis*.

#### **WHITE-BROWED TIT-BABBLER** *Alcippe vinipectus perstriata*

We collected four from the Ridgetop (Second Upper) Camp, at 2500 m, 4 March 1988. These are the first specimens from eastern Arunachal Pradesh. We compared our material with specimens from Sikkim, Tibet (Chumbi Valley), northern Burma, western Burma and western Yunnan. Birds from Sikkim, Chumbi Valley and western Burma (Mt Victoria) all differ in having a brown (not black) mask. Ours agree closely with material from Yunnan (*bieti*) but for its reduced streaking on the throat. Specimens from northern Burma (*perstriata*) agree perfectly (see Stanford & Mayr 1941). This is a first record of *A. v. perstriata* from Indian territory.

#### **BROWN-HEADED TIT-BABBLER** *Alcippe ludlowi*

In 1934, Frank Ludlow collected specimens of a distinct *Alcippe* population in eastern Bhutan that was described by Norman Kinnear (1935) as a new species, *ludlowi*. It differed from all other known populations by the lack of any white or blackish patterning on the head or face and the rich reddish-brown nape, ear, and mantle. Deignan (1964) subsumed this population into *cinereiceps*, the nearest population being *manipurensis* from Nagaland and Manipur.

Although *ludlowi* and *manipurensis* originally could justifiably be considered geographic replacements and treated as subspecies, specimens we collected from the Ridgetop Camp in March 1988 indicate otherwise.

There we collected both *manipurensis* and *ludlowi* (as well as *A. vinipectus perstriata*). Although these specimens were taken in the non-breeding season, there is no published evidence of geographic movement of any *Alcippe* populations. These birds were collected high on an isolated massif and are presumably year-round resident isolates living in true sympatry.

This clear evidence of micro-sympatry requires us to consider *ludlowi* and *manipurensis* distinct biological species. We thus elevate *ludlowi* to species status. We have given this bird the name Brown-headed Tit-babbler to highlight the most prominent feature of this species.

Morphologically, *A. ludlowi* is undeniably distinct from all other populations in the genus *Alcippe*. It is the only taxon with the deep red-brown hood, and the only uniformly dark-headed form that totally lacks facial patterning or superciliary striping. Our material from the Ridgeway Camp is darker and richer-plumaged than available material from Bhutan (a specimen collected in 1934). Since this difference may be a product of foxing, we shall await further examination of more material before deciding whether the Noa Dihing population merits a new name.

#### **GREY-HEADED TIT-BABBLER** *Alcippe cinereiceps manipurensis*

*Alcippe cinereiceps* is a high altitude species that, as now defined, is distributed from Manipur, Nagaland, and eastern Arunachal Pradesh eastward to Burma, southern China, Taiwan, and Indochina. Our specimens generally agree with the subspecies *manipurensis*, known from Nagaland and Manipur eastward to Yunnan. We suggest this species be known as Grey-headed Tit-babbler, to distinguish it from the brown-headed *ludlowi*.

#### **RUSTY-BELLIED SHORTWING** *Brachypteryx hyperythra*

This is another northeastern Himalayan endemic that is rarely encountered. Two males were collected at 77-mile Camp by SSS on 31 January and 7 February 1987. A single female was mist-netted at the Ramnagar Camp on 15 February 1988 (weight 14.9). Cheng (1987) notes a single record from Yunnan (western Gongshan), the first from outside the Indian region. It should be looked for in northern Burma.

#### **BLUE-FRONTED ROBIN** *Cinclidium frontale orientale*

Previous Indian specimens came from Nepal, Sikkim, and Darjeeling. Our two males (40-mile Camp, 17 March 1979; Lone Camp, 28 February 1988) are apparently the first of this century for the Indian region (Ali 1962).

Remarkably, this species has long been known from two disjunct populations, one in the eastern Himalayas (n nominate race), the other in Indochina (*orientale*, from Tonkin and Laos). Only recently has a Thai population been recorded, from Chiang Mai, Thailand (USNM specimen no. 535608, coll. B. King, 1965).

Our specimens agree with the material from Thailand and Tonkin (*orientale*). N nominate *frontale* differs in having a brownish wash on the abdomen, highlighted by "whitish on the centre abdomen and undertail coverts" (Baker 1924: 108). Thus *frontale* occurs west of the Brahmaputra River, and *orientale* to the east. All specimens examined (3 at USNM, 2 at



AMNH) have the concealed white patch under the bend of the wing, absent from the more common *Cinclidium leucurum* (also recorded from the Noa Dihing). Weights: 25.5, 29.

#### RED-HEADED TIT *Aegithalos concinnus manipurensis*

Our two specimens, collected in riverine scrub on 18 February 1988, are assignable to the population inhabiting the border ranges of the Brahmaputra (*manipurensis*) because of the rich rufous-buff of the breast. Birds from Sikkim and Nepal (*rubricapillus*) are paler ventrally. Specimens from Yunnan, Sichuan, and Tonkin (*talifuensis*) show a more prominent and better-delineated white patch on the abdomen.

#### CHESTNUT BUNTING *Emberiza rutila*

Our male (Ridgetop Camp, 7 March 1988) is a first record for Arunachal Pradesh of this winter migrant from Siberia and Manchuria. There is only a handful of records of this species from the Indian region (Ali & Ripley 1987). Weight: 18.8.

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## New distributional information on the *Aphelocoma* jays

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Thorough knowledge of patterns of distribution is crucial to understanding the ecology and historical biogeography of species (Mayr 1963). For example, in certain situations, the existence of peripheral isolate populations can lend support to hypotheses of relictual distribution (e.g. Fitzpatrick & O'Neill 1979). Discovery of populations inhabiting unusual habitats can change interpretations of ecological restriction and historical biogeography (e.g. Peterson & Vargas, in press). Thus, documentation of range extensions, especially those providing new information on the range of habitats that a species can utilize, is important.

Pitelka (1951, 1961) summarized the distribution and ecology of the three species of *Aphelocoma* jays. His work, based on virtually all of the specimens in North American museums (4817 in total) and a thorough review of the literature, revealed many interesting geographic patterns. Nevertheless, specimens and other information were insufficient to allow a thorough understanding of the distribution and geographic variation of the jays in several areas. Because the behaviour, ecology, and evolution of the *Aphelocoma* jays is of intense interest (e.g. Woolfenden & Fitzpatrick 1984, Brown & Horvath 1989), accurate information on distribution and ecology of the group is especially important.

This paper is intended to provide new information on the distribution and ecology of the three species of *Aphelocoma* jays. This information has been amassed during extensive field work in the United States and Mexico during 1986–89, discussions with other scientists, and reviews of most major museum collections in the United States and Mexico. Several range extensions are described, and the taxonomic implications of the two most significant are discussed.

### Results

Below is a summary of new distributional information for each of the three species, listed in north-to-south order. Several new records were